

## WHAT IS CLAIMED IS:

1. A method of selectively providing a desired electric signal path or paths between a plurality of input means such as input terminals and a plurality of output means such as output terminals, which method comprises:

- (a) providing input select means and output select means capable of manual actuation for selecting any of a plurality of input means and any of a plurality of output means for creation of a signal path therebetween;
- (b) constantly monitoring the input select means and the output select means to determine whether any of the input means and any of the output means are selected for creation of a signal path therebetween;
- (c) canceling, when any one input means and any one output means are selected for creation of a signal path therebetween, a pre-existing signal path, if any, between the selected input means and any unselected output means and between any unselected input means and the selected output means; and
- (d) creating the desired signal path between the selected input means and the selected output means;
- (e) whereby each desired signal path can be created to the exclusion of any preexisting signal path between the input means and the output means that might interfere with the creation of the desired signal path.

2. The method of claim 1 wherein whether any of the input means and any of the output means are selected for creation of a signal path therebetween is determined by:

- (a) storing data indicative of whether or not the individual input means and the individual output means are selected at a current sampling moment;
- (b) storing data indicative of whether or not the individual input means and the individual output means were selected at a previous sampling moment; and
- (c) comparing, at each sampling moment, the data stored at the

current and the previous sampling moments.

3. The method of claim 1 wherein the desired signal path is created when the associated input select means and output select means are actuated concurrently.

4. A method of selectively providing a desired electric signal path or paths between a plurality of input means such as input terminals and a plurality of output means such as output terminals, which method comprises:

- (a) laying out all the input means and all the output means on a control panel in prescribed arrangement;
- (b) positioning on the control panel a plurality of input select pushbutton switches, and a plurality of output select pushbutton switches, the input select pushbutton switches and the output select pushbutton switches being positioned so close to one another that any one input select pushbutton switch and any one output select pushbutton switch are capable of concurrent one-hand, finger-pressure actuation to select one associated input means and one associated output means for creation of a signal path therebetween;
- (c) constantly monitoring all the input select pushbutton switches and all the output select pushbutton switches to determine whether any of the input select pushbutton switches and any of the output select pushbutton switches are concurrently actuated;
- (d) canceling, when any one input means and any one output means are selected for creation of a signal path therebetween, a preexisting signal path, if any, between the selected input means and any unselected output means and between any unselected input means and the selected output means; and
- (e) creating the desired signal path between the selected input means and the selected output means;
- (f) whereby each desired signal path can be created to the exclusion of any preexisting signal path between the input means and the output means that might interfere with the creation of

the desired signal path.

5. The method of claim 4 which further comprises:

- (a) positioning on the control panel a plurality of input select indicators one adjacent each input select pushbutton switch, and a plurality of output select indicators one adjacent each output select pushbutton switch; and
- (b) causing one associated input select indicator and one associated output select indicator to glow upon concurrent finger-pressure actuation of one input select pushbutton switch and one output select pushbutton switch.

6. A signal path selector for selectively providing a desired electric signal path or paths between a plurality of input means such as input terminals and a plurality of output means such as output terminals, comprising:

- (a) a plurality of input means;
- (b) a plurality of output means;
- (c) input select means capable of manual actuation for selecting any of the input means for creation of a signal path to any selected output means;
- (d) output select means capable of manual actuation for selecting any of the output means for creation of a signal path from any selected input means;
- (e) control means responsive to the actuation of the input select means and the output select means for creating the desired signal path between any selected input means and any selected output means to the exclusion of any preexisting signal path between the input means and the output means that might interfere with the creation of the desired signal path.

7. The signal path selector of claim 6 wherein the control means comprises:

- (a) means for storing data indicative of whether or not the individual input means and the individual output means are selected by the input select means and the output select means at a

current sampling moment; and

- (b) means for storing data indicative of whether or not the individual input means and the individual output means were selected by the input select means and the output select means at a previous sampling moment;
- (c) the control means comparing, at each sampling moment, the data stored at the current and the previous sampling moments in order to determine whether any of the input means and any of the output means are selected for creation of a signal path therebetween.

8. The signal path selector of claim 6 further comprising indicator means for visually indicating which of the input means and which of the output means are selected by the input select means and the output select means for creation of a signal path therebetween.

9. A signal path selector for selectively providing a desired electric signal path or paths between a plurality of input means such as input terminals and a plurality of output means such as output terminals, comprising:

- (a) a control panel;
- (b) a plurality of input means and a plurality of output means laid out on the control panel in prescribed arrangement;
- (c) a plurality of input select pushbutton switches positioned on the control panel;
- (d) a plurality of output select pushbutton switches positioned on the control panel, the input select pushbutton switches and the output select pushbutton switches being positioned so close to one another that any one input select pushbutton switch and any one output select pushbutton switch are capable of concurrent one-hand, finger-pressure actuation to select one associated input means and one associated output means for creation of a signal path therebetween; and
- (e) control means responsive to the actuation of the input select pushbutton switches and the output select pushbutton switches for creating the desired signal path between any selected input

means and any selected output means to the exclusion of any preexisting signal path between the input means and the output means that might interfere with the creation of the desired signal path.

10. A signal path selector for selectively providing a desired electric signal path or paths between a plurality of input means such as input terminals and a plurality of output means such as output terminals, comprising:

- (a) a control panel;
- (b) a plurality of input means and a plurality of output means laid out on the control panel in prescribed arrangement;
- (c) a plurality of input select means positioned on the control panel;
- (d) a plurality of output select means positioned on the control panel, the input select means and the output select means being positioned so close to one another that any one input select means and any one output select means are capable of concurrent one-hand, finger-pressure actuation to select one associated input means and one associated output means for creation of a signal path therebetween;
- (e) a plurality of input select indicators positioned on the control panel one adjacent each input select means;
- (f) a plurality of output select indicators positioned on the control panel one adjacent each output select means;
- (g) control means responsive to the actuation of the input select means and the output select means for creating the desired signal path between any selected input means and any selected output means, and for selectively causing the input select indicators and the output select indicators to glow by way of visual aid to the selective connection of the input means and the output means.

11. In a digital mixer, a signal path selector for selectively providing desired signal paths between a plurality of input terminals and a plurality of mixing modules, the signal path selector comprising:

- (a) a control panel;
- (b) a plurality of input terminals and a plurality of mixing module control means laid out on the control panel in prescribed arrangement;
- (c) a plurality of input select pushbutton switches positioned on the control panel;
- (d) a plurality of mixing module select pushbutton switches positioned on the control panel, the input select pushbutton switches and the mixing module select pushbutton switches being positioned so close to one another that any one input select pushbutton switch and any one mixing module select pushbutton switch are capable of concurrent one-hand, finger-pressure actuation to select one associated input terminal and one associated mixing module control means for creation of a signal path therebetween; and
- (e) control means responsive to the actuation of the input select pushbutton switches and the mixing module select pushbutton switches for creating the desired signal path between any selected input terminal and any selected mixing module to the exclusion of any preexisting signal path between the input terminals and the mixing modules that might interfere with the creation of the desired signal path.

12. The invention of claim 11 further comprising:

- (a) a plurality of input select indicators positioned on the control panel one adjacent each input select pushbutton switch; and
- (b) a plurality of mixing module select indicators positioned on the control panel one adjacent each mixing module select pushbutton switch;
- (c) the control means being responsive to the actuation of the input select pushbutton switches and the mixing module select pushbutton switches for selectively causing the input select indicators and the mixing module select indicators to glow by way of visual aid to the selective connection of the input terminals and the mixing modules.